



MARVIN'S MAZE
CONVERSION KIT
INSTRUCTION
MANUAL

SNK ELECTRONICS CORP.

3043 KASHIWA STREET,
TORRANCE, CALIF. 90505

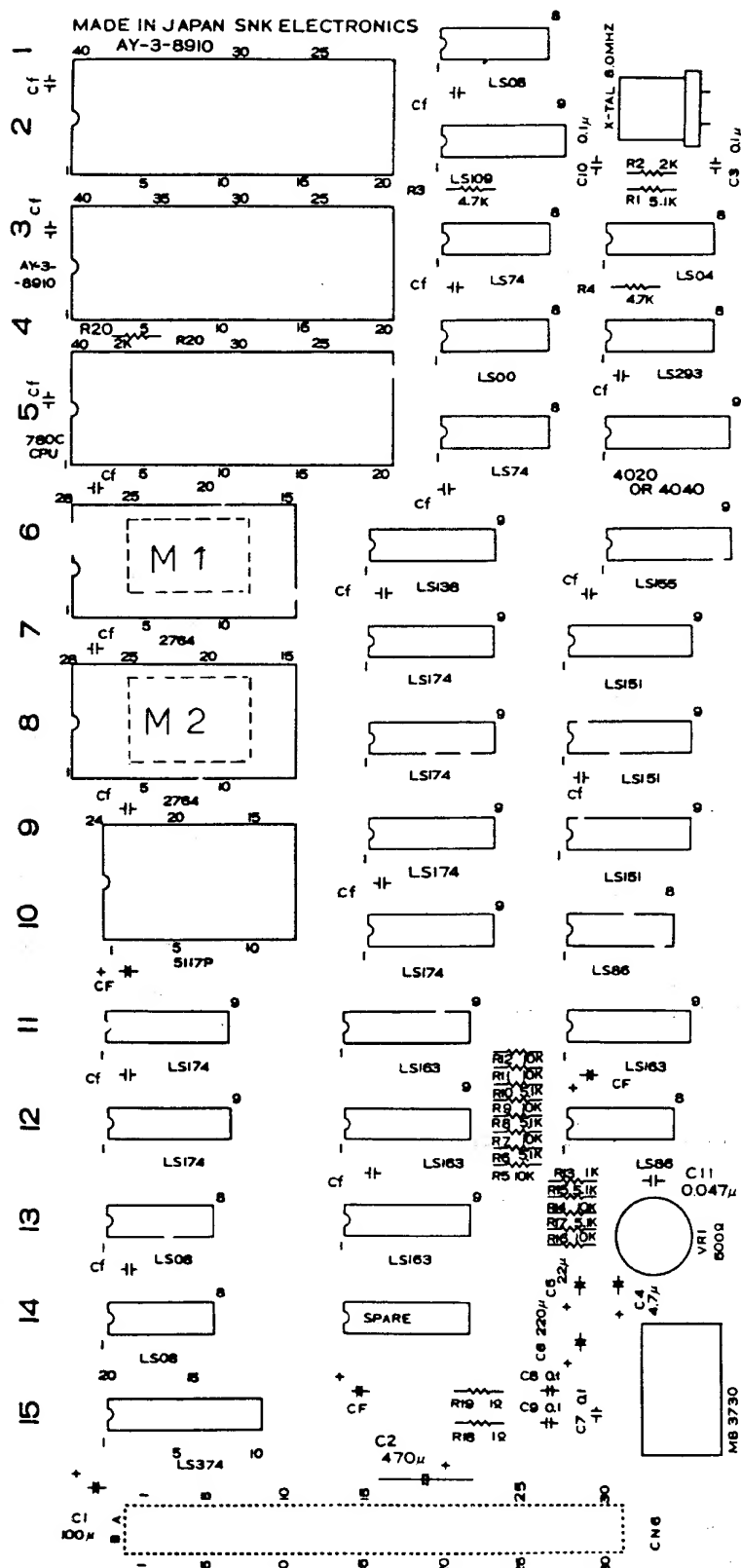
Phone: (213) 539-2744

TLX: 182426 SNK CORP.

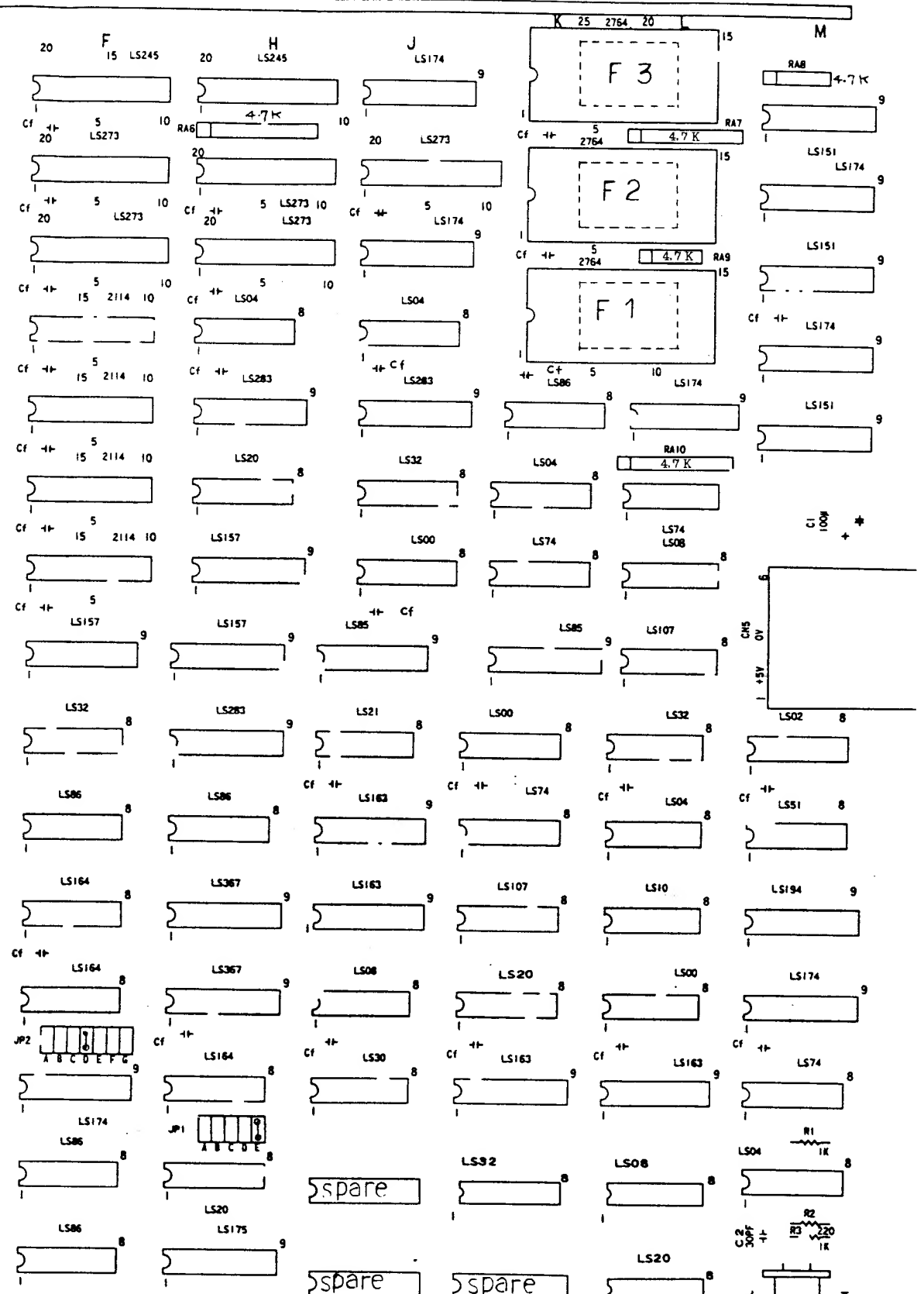
A2003UP03-01

MADE IN JAPAN SNK ELECTRONICS

AY-3-8910

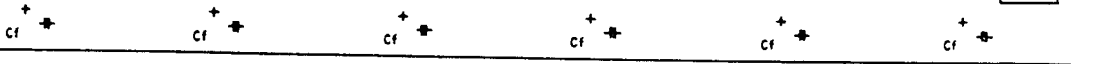


PARTS LAYOUT

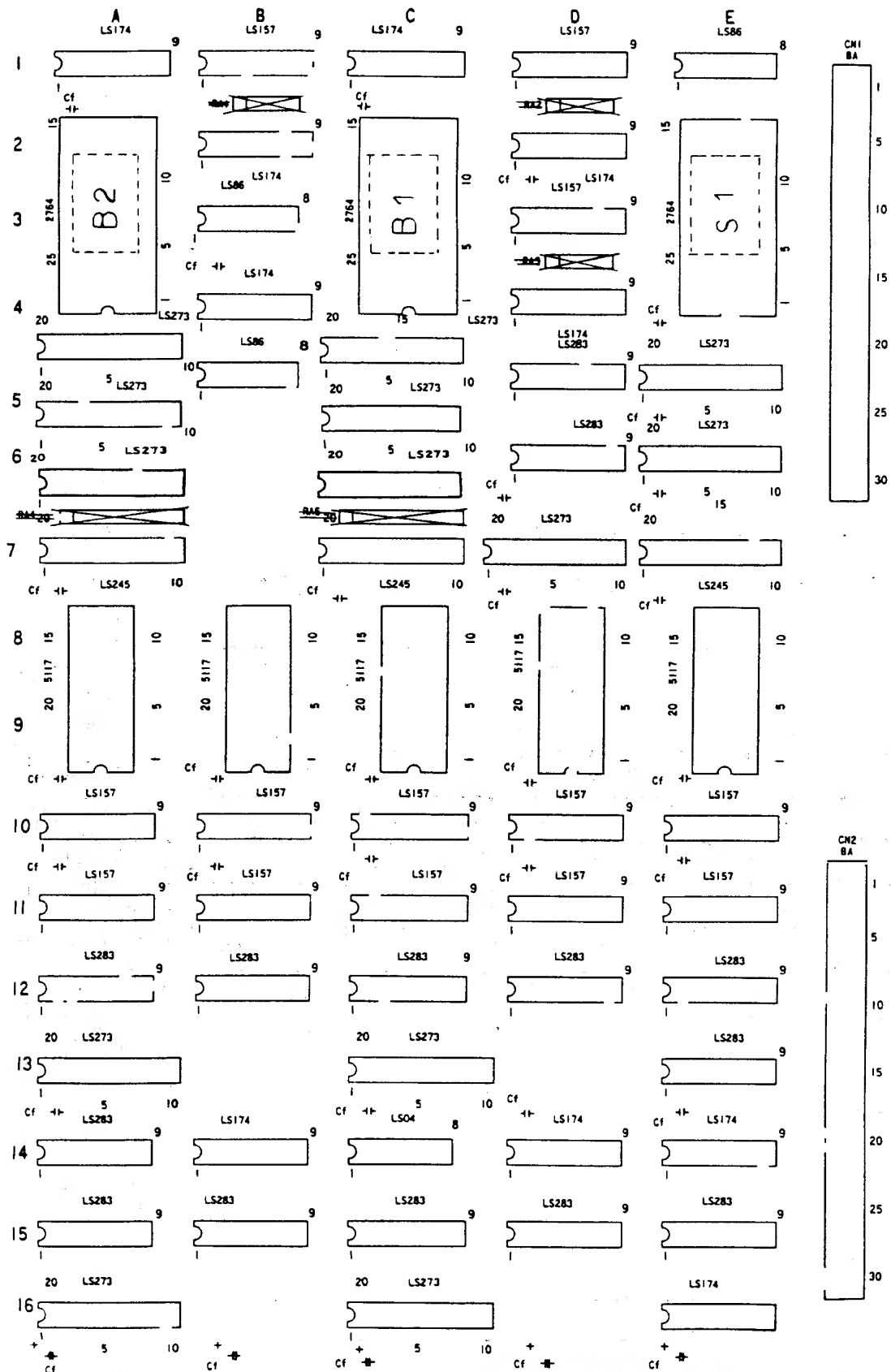


MADE IN JAPAN
SNK ELECTRONICS

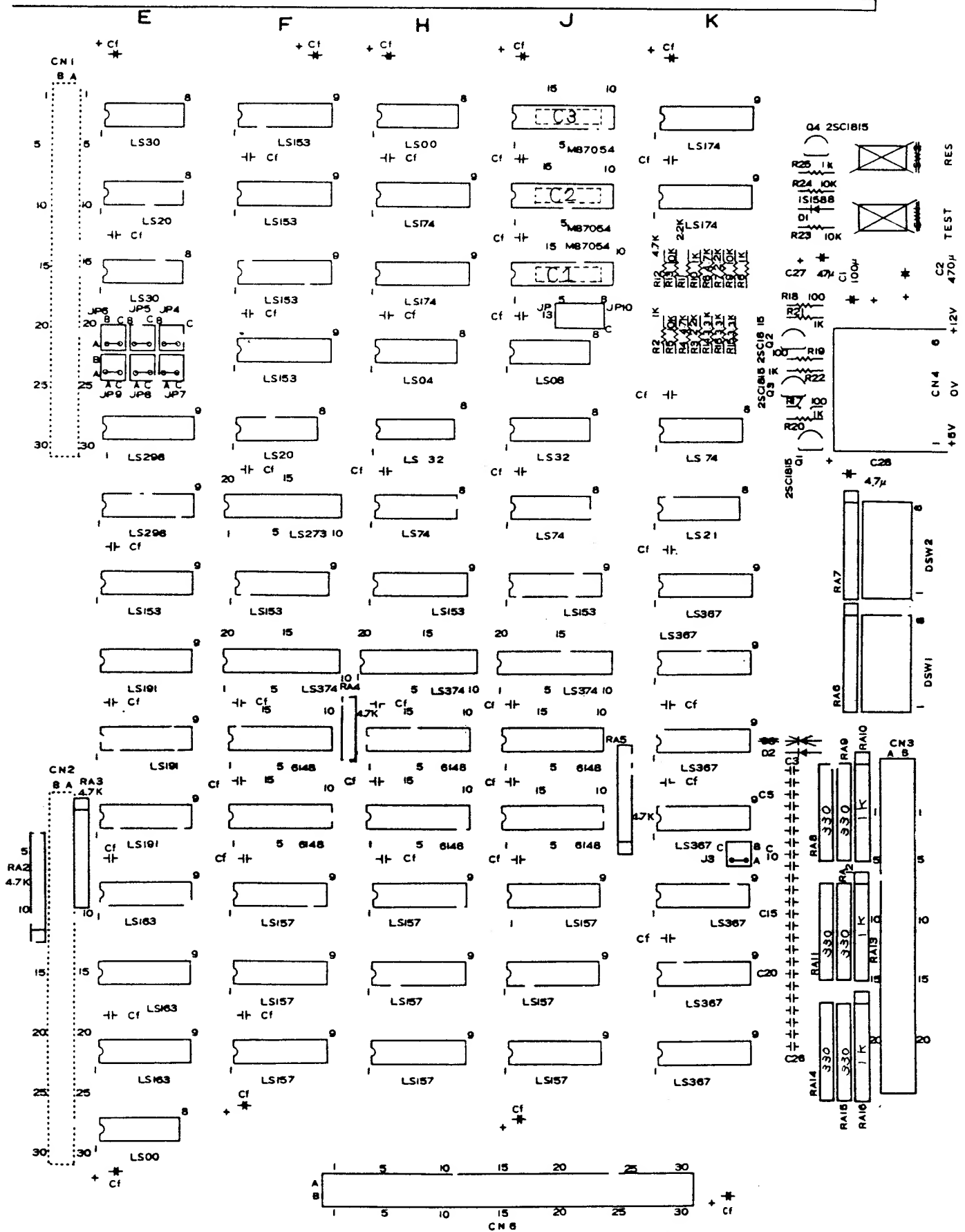
A2003 UP01-04



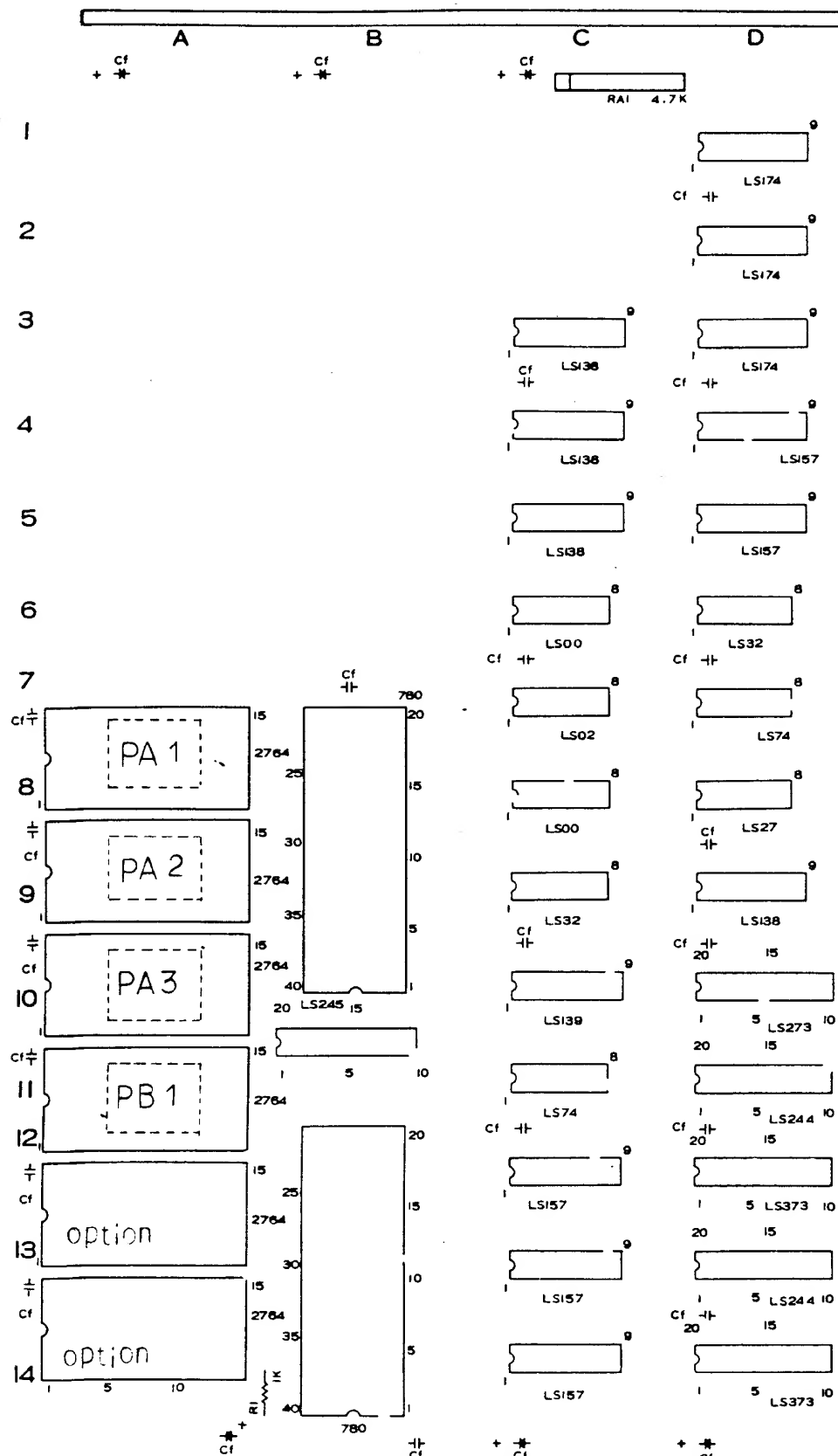
PARTS LAYOUT & NUMBER OF ROM



PARTS LAYOUT

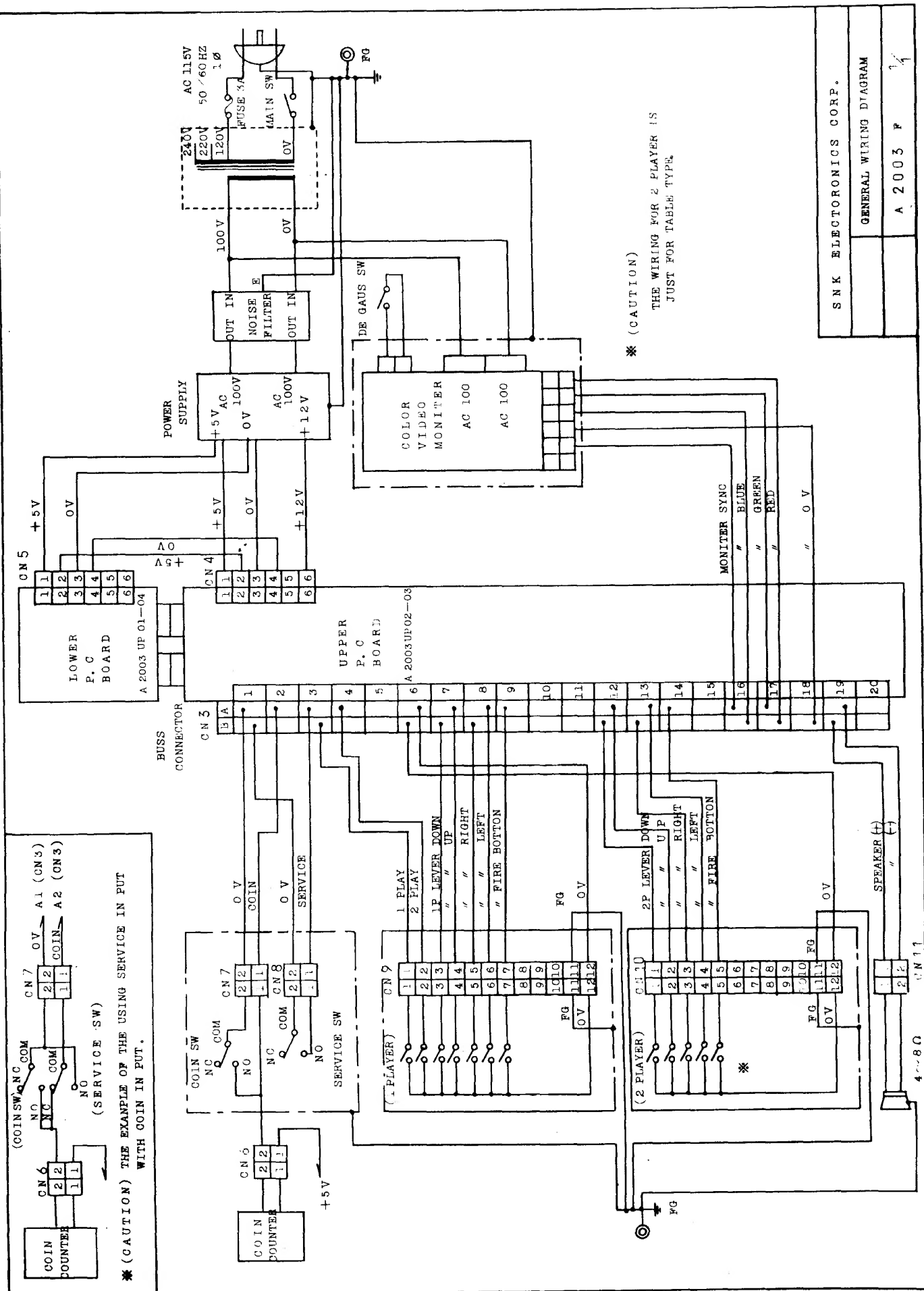


PARTS LAYOUT & NUMBER OF ROM



A2003UP02-03 MADE IN JAPAN SNK ELECTRONICS

PARTS LAYOUT



1 DC POWER SUPPLY CONNECTOR (VHR - 6N)

CN 4

PIN	SIGNAL	
1	+5V	RED
2	+5V	"
3	0V	BLACK
4	0V	"
5	NC	
6	+12V	YELLOW

CN 5

PIN	SIGNAL	
1	+5V	RED
2	+5V	"
3	0V	BLACK
4	0V	"
5	NC	
6	NC	

2 SIGNAL CONNECTOR (PS - D4C - 40 : JAE)

CN 3

PIN	SIGNAL		PIN	SIGNAL	
A 1	0V		B 1	0V	
2	COIN		2	NC	
3	SERVICE SW	NOTE 1	3	1 PLAYER SELECT	
4	2 PLAYER SELECT		4	NC	
5	NC		5	NC	
6	0V		6	0V	
7	1 PLAY UP		7	1 PLAY DOWN	
8	" LEFT		8	" RIGHT	
9	" FIRE		9	" PUSH 2	NOTE 3
10	NC		10	NC	
11	NC		11	NC	
12	2 PLAY UP	NOTE 2	12	2 PLAY DOWN	NOTE 2
13	" LEFT	"	13	" RIGHT	"
14	" FIRE	"	14	" PUSH 2	NOTE 3
15	NC		15	NC	
16	VIDEO SYNC		16	VIDEO BLUE	
17	" GREEN		17	" RED	
18	NC		18	" 0V	
19	SPEAKER (-)		19	SPEAKER (+)	
20	NC		20	NC	

(NOTE 1) COIN INPUT CAN BE USED FOR SERVICE INPUT.
REFER TO WIRING DIAGRAM (A2003F).

(NOTE 2) THE WIRING FOR 2-PLAYER IS JUST FOR TABLE-TYPE.

(NOTE 3) 1 PLAY PUSH 2 ——— EXTRA FOR THE FUTURE GAMES.
2 PLAY PUSH 2

(NOTE 4) DO NOT USE EMPTY PINS.

(NOTE 5) THE SPECIFICATION ON COIN COUNTER IS +5V POWER USED ONLY.
THE CALCULATING SPEED 600 COUNTS/M. (duty 50%)

APPR	CHECK	ORG	SNK ELECTRONICS	No.
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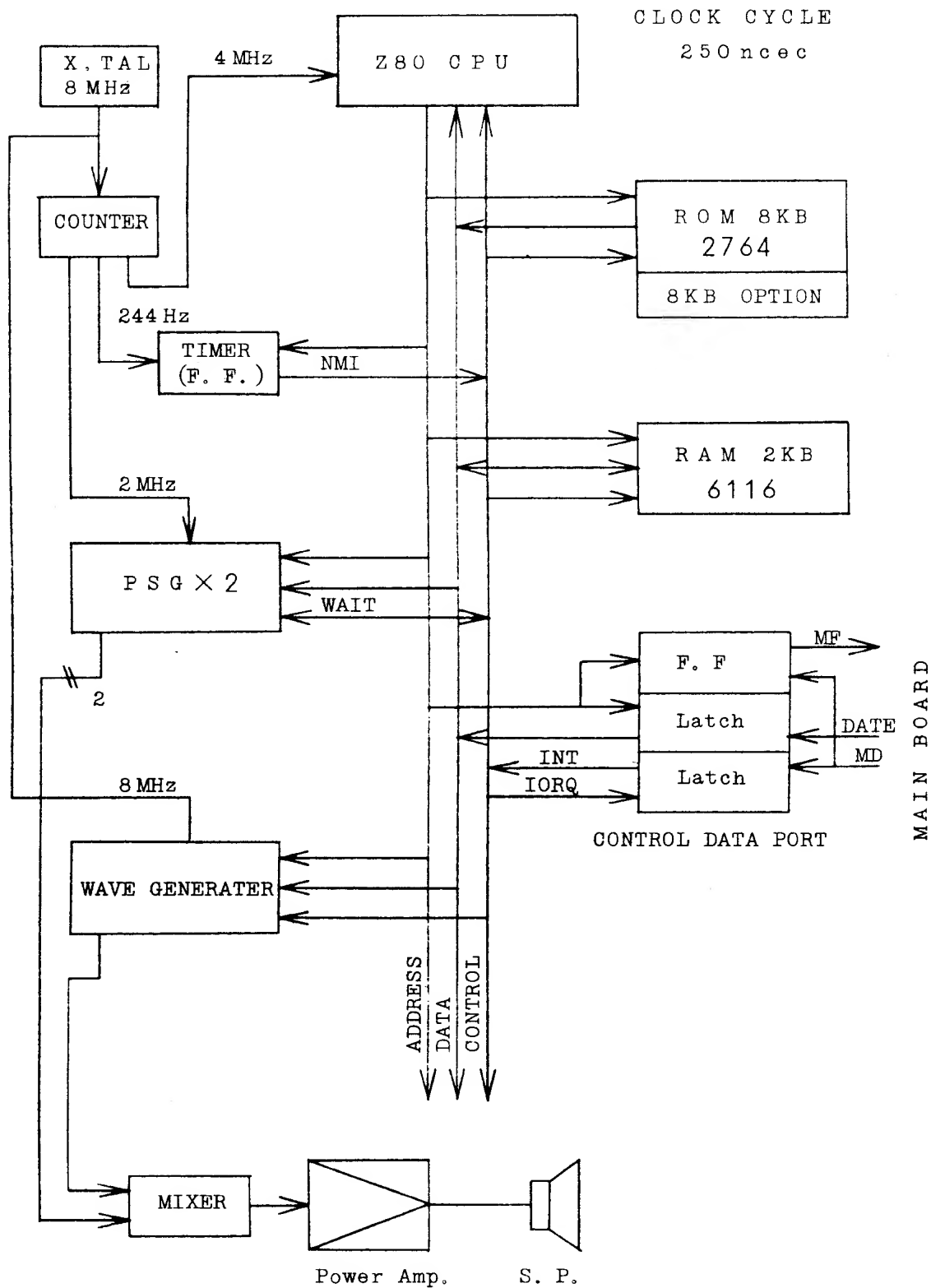
BLOCK DIAGRAM — MAIN BOARD

The block diagram illustrates the architecture of the main board, showing the flow of data and control signals between various components. The components are organized into several functional blocks:

- Control and Timing:** Includes a **RESET** button, **CONTROL SW** (Control Switch), **MUSIC** input, **OSC** (Oscillator) at 3.36MHz, and a **VIDEO COUNTER**.
- Processing and Memory:** Features two **Z80A CPU** units. The left CPU is connected to a **ROM 24K** (2764x3) and an **I/O** block. The right CPU is connected to a **ROM 24K** (2764x3) and a **Selec-tor** block. Both CPUs are connected to a **Selec-tor** block that manages data flow between various **V-RAM** (Video Random Access Memory) blocks and **C G** (Control Generator) blocks.
- Video and Audio:** The **V-RAM** blocks include **Front V-RAM** (2114x4), **Back 1 V-RAM** (6116x2), **Back 2 V-RAM** (6116x2), **Side V-RAM** (6116), and **Control** (FO00H~F7FFH). These are connected to **C G** blocks (2764x1) and a **Mixer** block. The **Mixer** block is connected to a **Color P-ROM** (7054x3) and a **Line Buffer** (8148x6). The **Color P-ROM** outputs **VIDEO OUT**.
- Interfacing:** The **I/O** block connects the left CPU to the **CONTROL SW** and **MUSIC** inputs. The **Selec-tor** block connects the right CPU to the **V-RAM** and **C G** blocks.

The diagram shows a complex interconnection of these blocks, with data paths and control lines clearly defined. The **Selec-tor** blocks play a central role in managing the data flow between the CPUs and the various memory and processing units. The **V-RAM** and **C G** blocks are essential for video processing, while the **Color P-ROM** and **Line Buffer** handle the final video output.

BLOCK DIAGRAM-SOUND BOARD



APPR . . .
H. N

CHECK . . .

ORG . . .

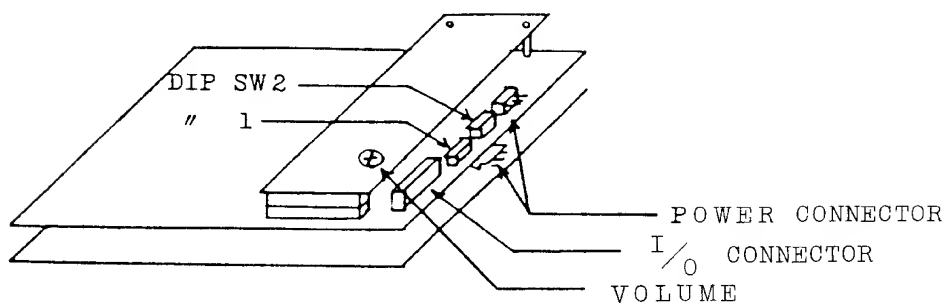
K

SNK ELECTRONICS

No

BLOCK DIAGRAM(1) /

1 INSTRUCTION ON MAIN P. C. BOARD



2 DIP SW SETTINGS

2-1 DIP SW 1

SW No.	8	7	6	5	4	3	2	1
NUMBER OF PLAY 1						OFF	ON	ON
" 2						OFF	ON	OFF
" 3						OFF	OFF	ON
" 5						OFF	OFF	OFF
PLAY CAN BE CONTINUED						ON		
COIN/PLAY 1/1		OFF	ON	ON	ON			
" 1/2		OFF	ON	ON	OFF			
" 1/3		OFF	ON	OFF	ON			
" 1/5		OFF	ON	OFF	OFF			
" 1/6		OFF	OFF	ON	ON			
" 2/1		OFF	OFF	ON	OFF			
" 3/1		OFF	OFF	OFF	ON			
" 5/1		OFF	OFF	OFF	OFF			
FREE PLAY		ON						
SCREEN STOP	ON							

2-2 DIP SW 2

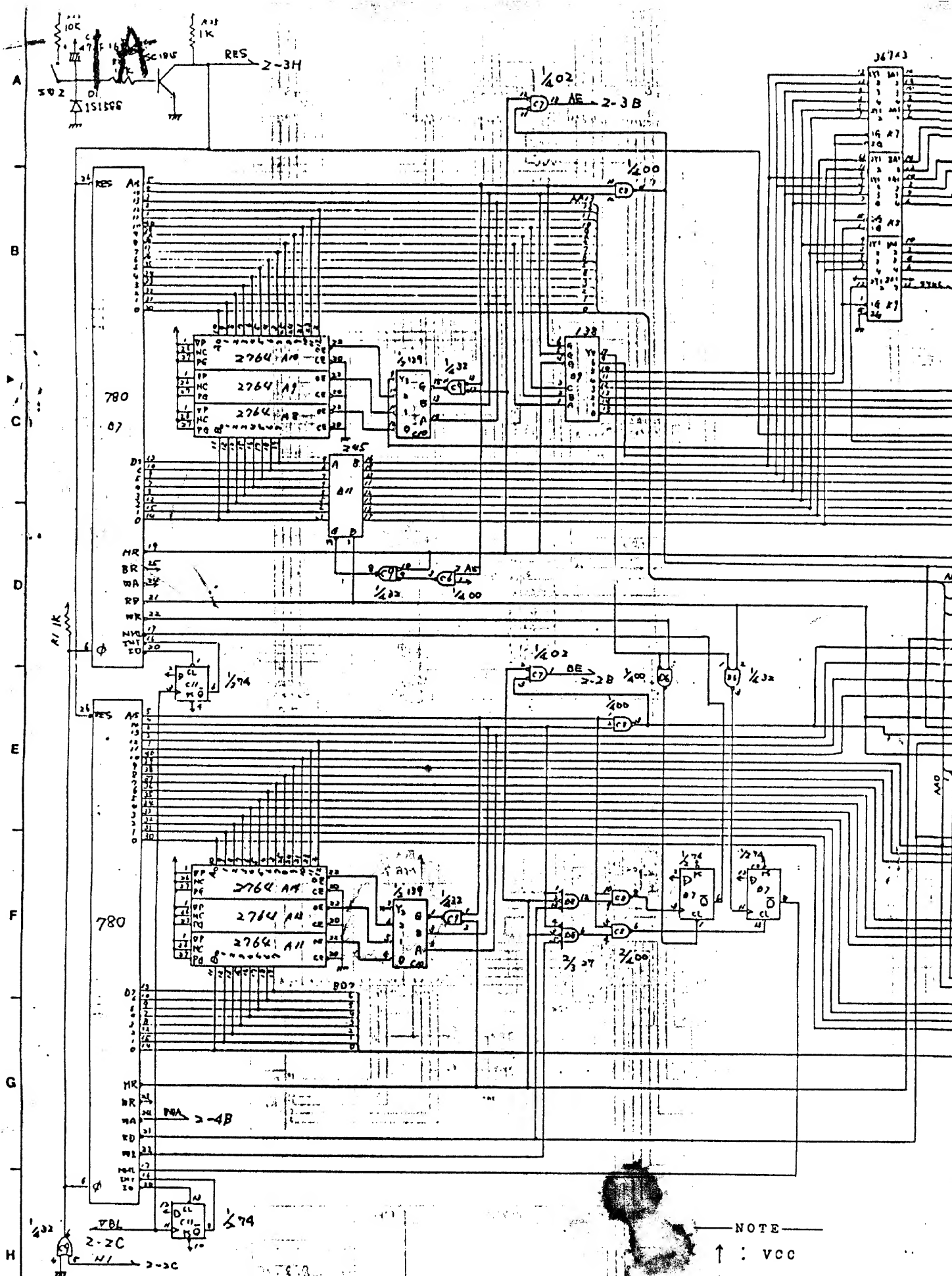
SW No.	8	7	6	5	4	3	2	1
1st BONUS 10000						ON	ON	ON
" 20000						ON	ON	OFF
" 30000						ON	OFF	ON
" 40000						ON	OFF	OFF
" 50000						OFF	ON	ON
" 60000						OFF	ON	OFF
" 70000						OFF	OFF	ON
" 80000						OFF	OFF	OFF
2nd BONUS NO USED				ON	ON			
" +1st BONUS				ON	OFF			
" +1st×2				OFF	ON			
" +1st×3				OFF	OFF			
MUSIC IN ATTRACT MODE			OFF					
TABLE		OFF						
SWITCH THE SCREEN	OFF							

THE EXAMPLE OF 2ND BONUS:

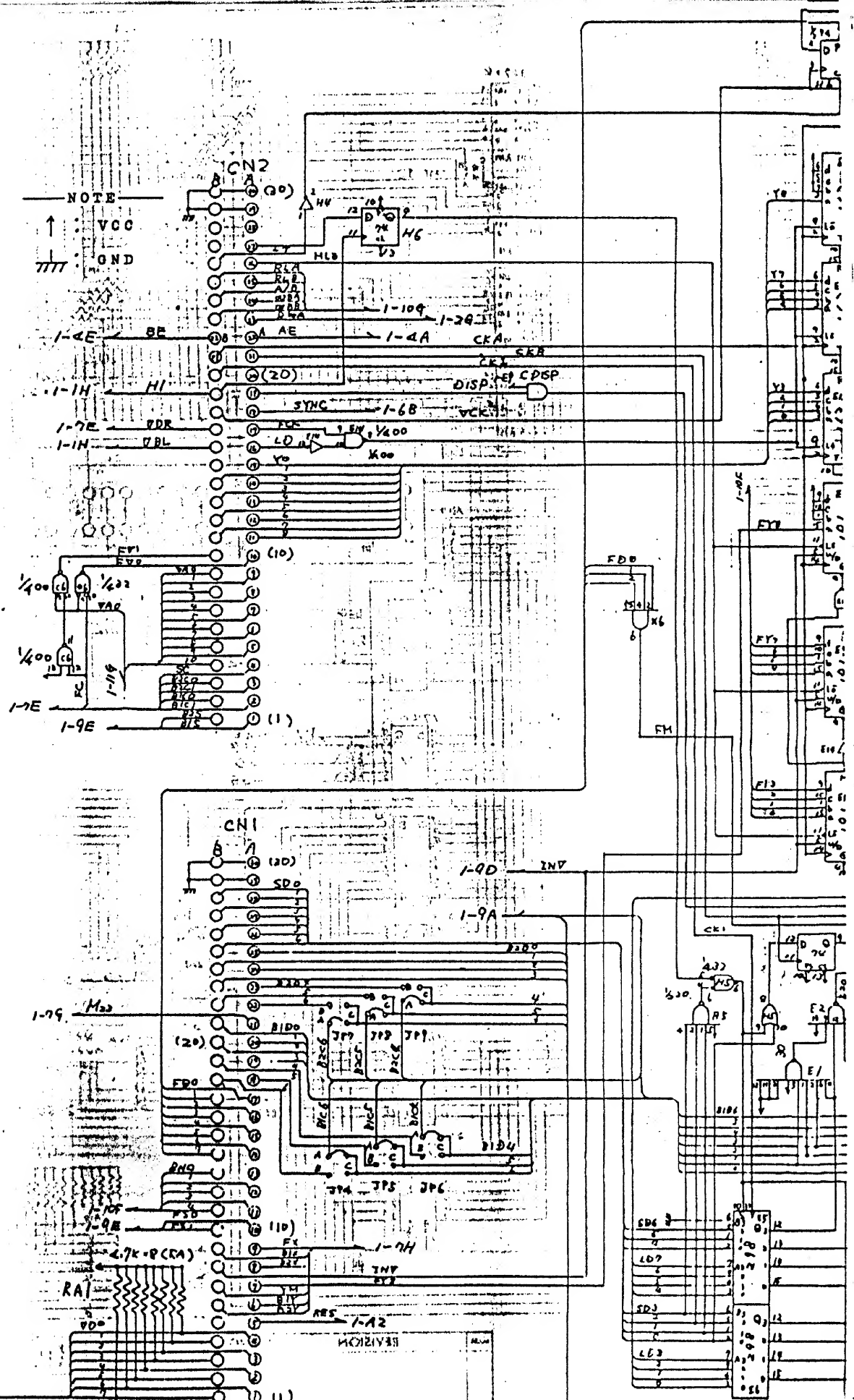
$$\begin{aligned}
 1st \text{ BONUS} &= 30000 & 2nd \text{ BONUS} &= 1st \times 2 \\
 2nd \text{ BONUS POINT} &= 1st + 1st \times 2 \\
 &= 30000 + 30000 \times 2 = 90000
 \end{aligned}$$

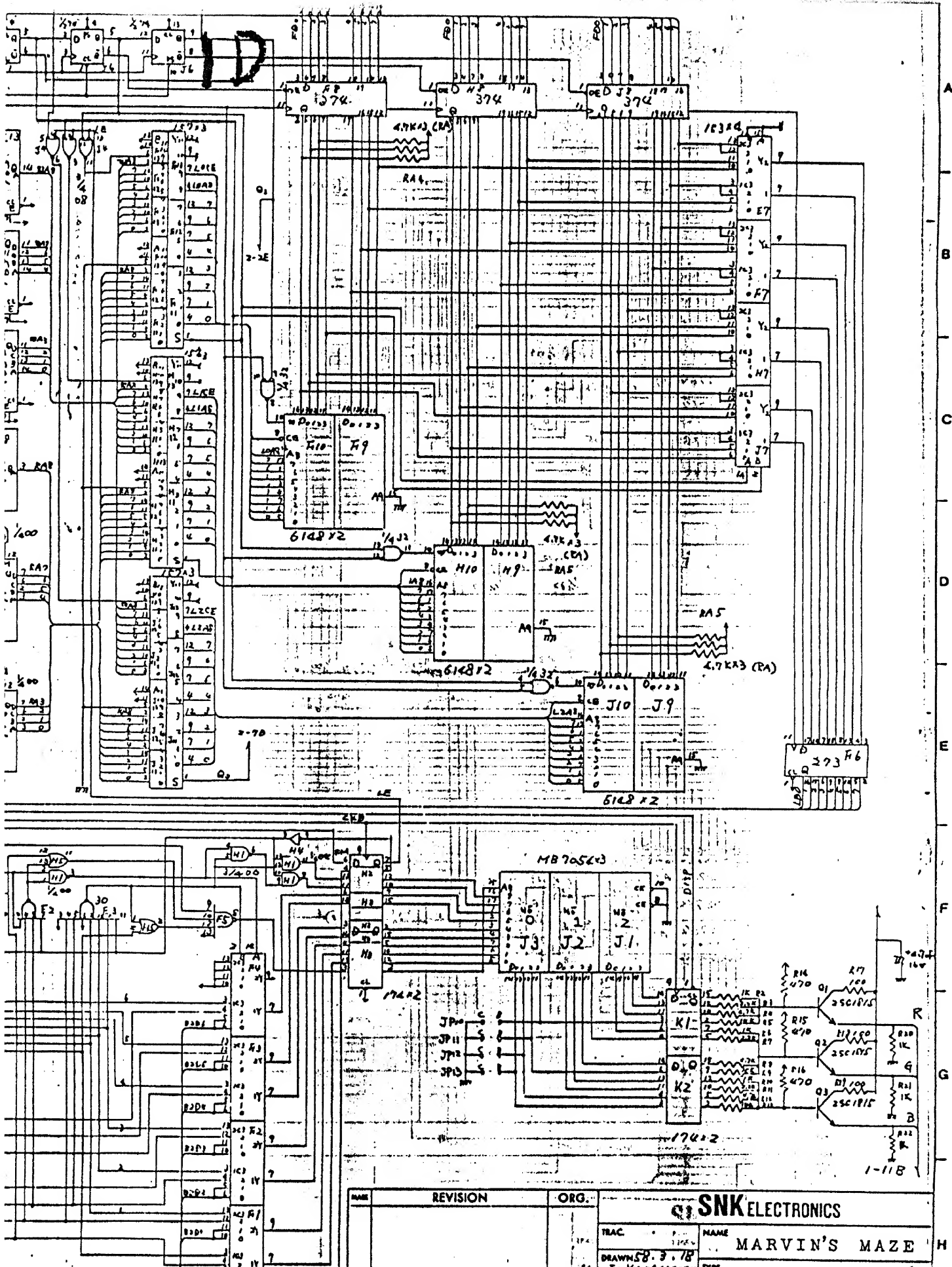
SWITCH THE SCREEN

WHEN THE DIRECTION OF PLAYER 1 IS INCORRECT, USE "ON".



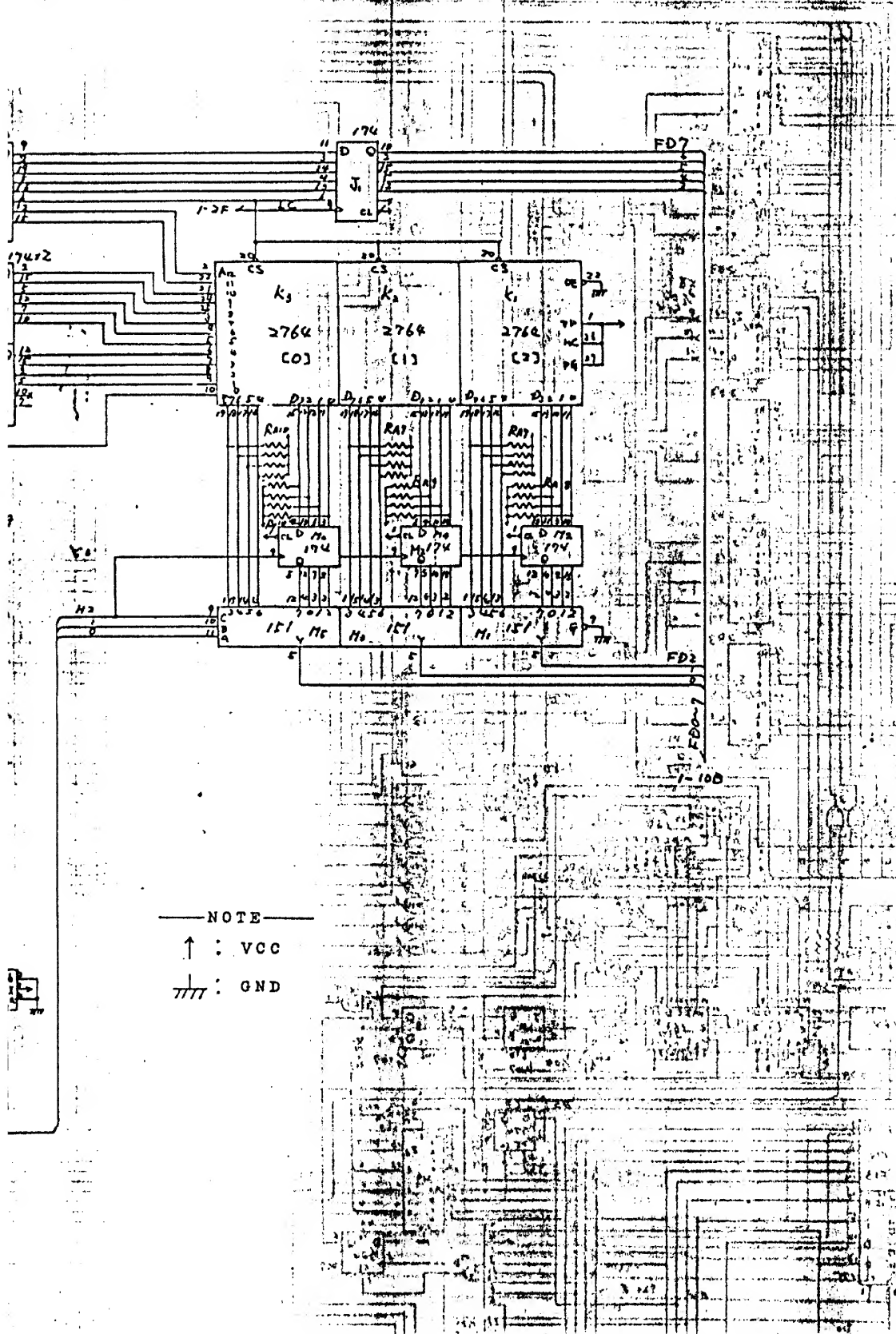
A vertical scale with labels A, B, C, D, E, F, G, and H. A horizontal line is drawn between B and C, and a horizontal arrow points to the line between C and D.





NAME	REVISION	ORG.	SNK ELECTRONICS	
TRAC			NAME	MARVIN'S MAZE
DRAWN	5.3.78			

2D

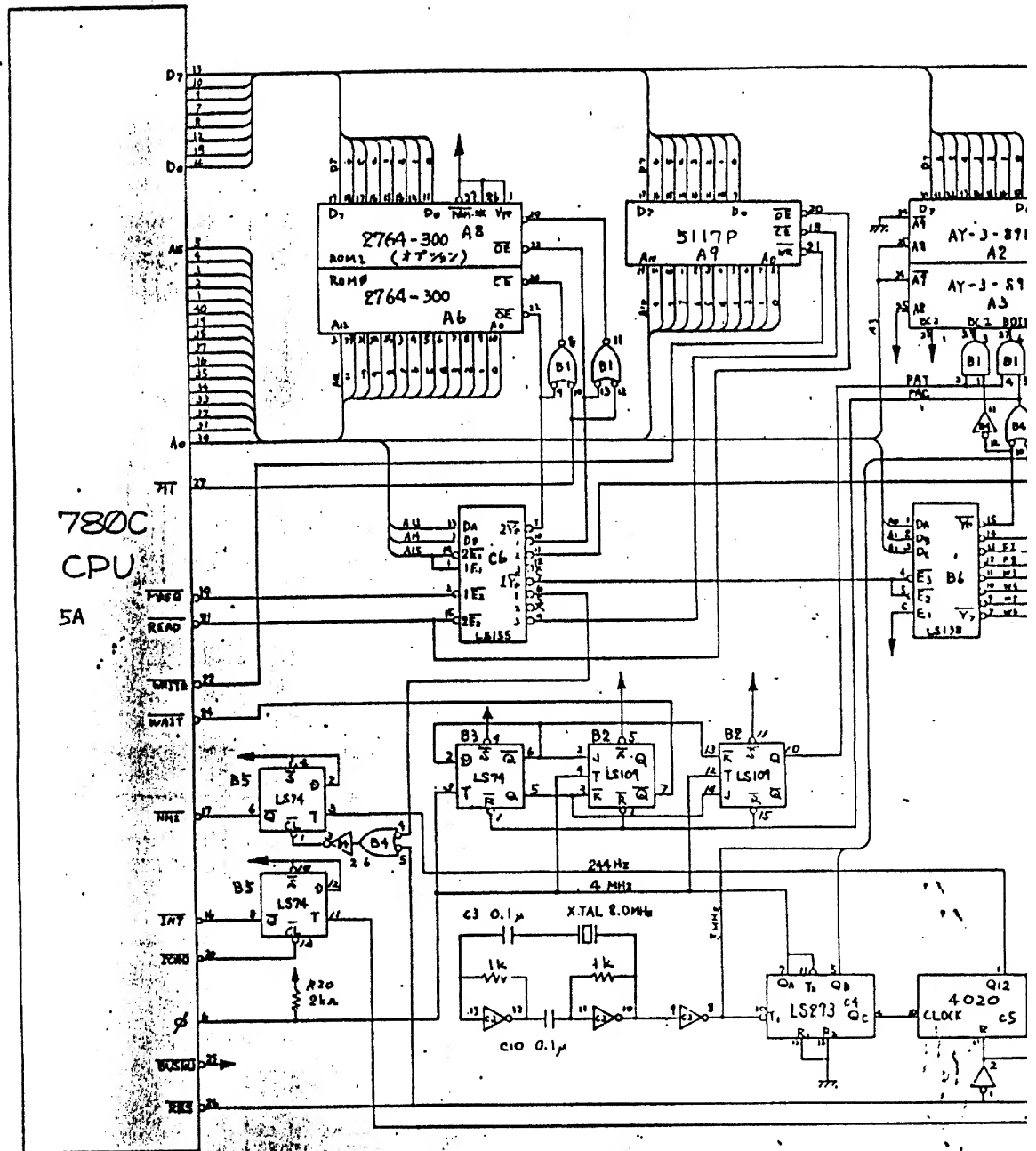


NOTE
 ↑ : VCC
 |||| : GND

REV.	REVISION...	ORG.	NAME	SNK ELECTRONICS
DATE	DATE	DATE	NAME	MARVIN'S MAZE
DESIGNER	DESIGNER	DESIGNER	TYPE	TYPE
DRAWN	DRAWN	DRAWN	DATE	DATE
CHECKED	CHECKED	CHECKED	BY	BY
APPROVED	APPROVED	APPROVED	DATE	DATE

A
B
C
D
E
F
G
H

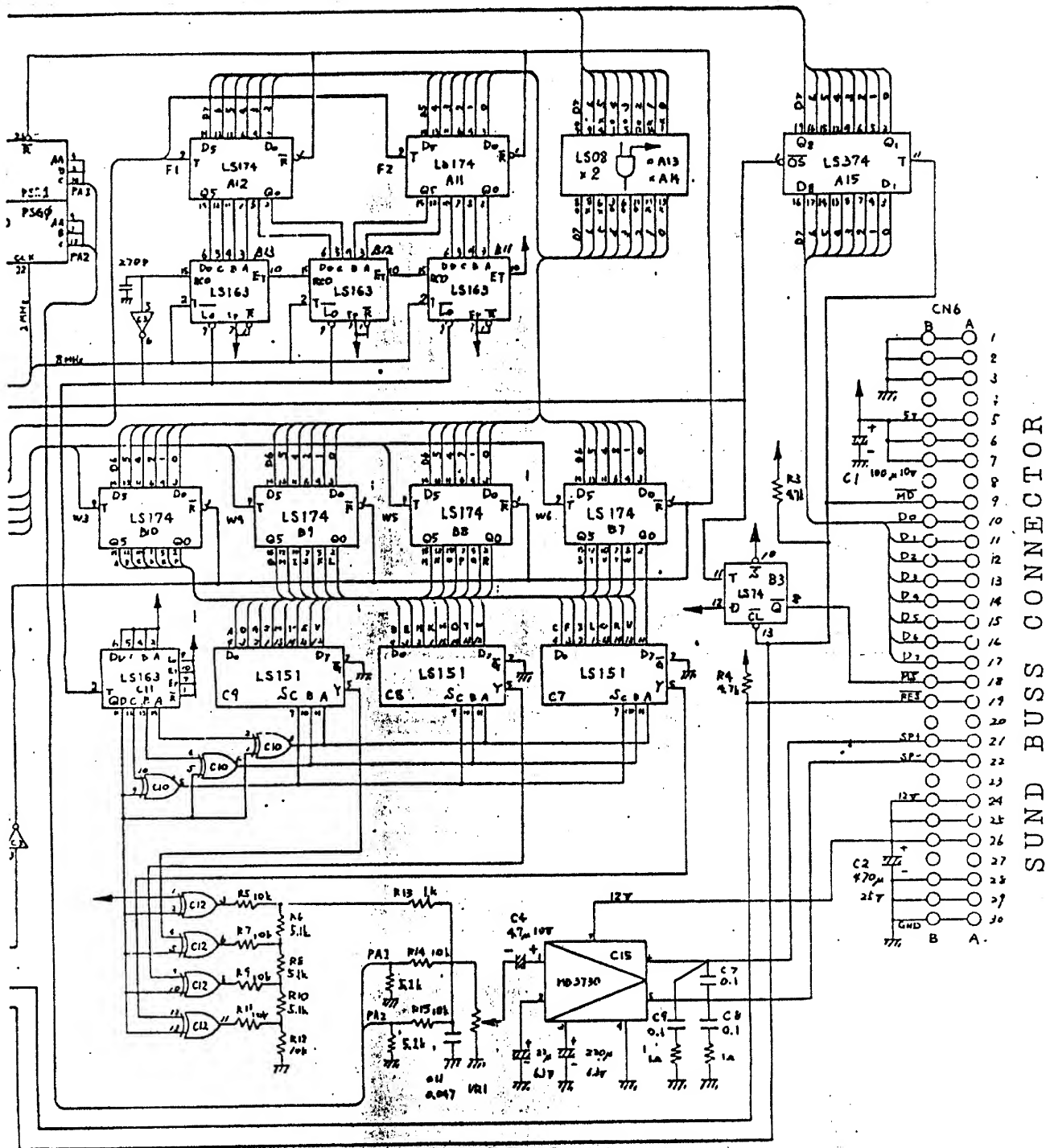
3A



NOTE
 ↑ : VCC
 ↓ : GND

	VCC	GND
780C CPU	11	29
2764 ROM	28	14
5117 RAM	24	12
AY-3-891 P5(1)	40	1
4020 → 4090	16	8

3B



NAME	REVISION	ORG.	SNK ELECTRONICS	
TRAC. 83.3.15			NAME	MARVIN'S MAZE
KUSUKI			TYPE	SOUND SCHEMATIC
DRAWN. 83.3.15			DRG. NO.	A 2003 UC 03-01
KUSUKI				
CHECK 83.3.18				
CH1412				
APPRO. 83.3.18				
H. N. N. N. N.				